

CLAIMS

1. A method of processing a digital television signal comprising the steps of:

(a) receiving a digital television signal having closed caption data;

5 (b) processing the closed caption data according to a digital closed caption data standard if it is determined that the closed caption data of the received digital television signal is in a digital closed caption standard format, else processing the closed caption data according to an analog closed caption data standard if it is determined that the closed caption data of the received 10 digital television signal is in an analog closed caption standard format; and

(c) providing a resulting television signal from the received digital television signal and the processed closed caption data that is suitable to show the processed closed caption data on a display.

15 2. The method of claim 1 wherein the step of processing the closed caption data

according to a digital closed caption data standard if it is determined that the closed caption data of the received digital television signal is in a digital closed caption standard format else processing the closed caption data according to an analog closed caption data standard if it is determined that the closed caption 20 data of the received digital television signal is in an analog closed caption standard format includes:

processing the digital closed caption data according to EIA-708 digital closed caption data standard; and

processing the analog closed caption data according to EIA-608 analog closed caption data standard.

3. The method of claim 1, wherein the step of processing the closed caption data
5 according to a digital closed caption data standard if it is determined that the closed caption data of the received digital television signal is in a digital closed caption standard format else processing the closed caption data according to an analog closed caption data standard if it is determined that the closed caption data of the received digital television signal is in an analog closed caption
10 standard format includes:

monitoring the digital television signal having closed caption data for digital closed caption data packets in conformance with the digital closed caption standard format and for analog closed caption data packets in conformance with the analog closed caption standard format.

4. The method of claim 1, wherein the step of receiving a digital television signal having closed caption data comprises tuning to a digital television signal having closed caption data.

20 5. A television signal receiver comprising:

a digital tuner operable to receive a digital television signal containing closed caption data;

a digital television signal processor connected to said digital tuner and operable to obtain a video signal and extract the closed caption data from the digital television signal; and

5 a closed caption data processor connected to said digital television signal processor and operable to i) determine whether the extracted closed caption data is formatted according to a digital closed caption data standard or according to an analog closed caption data standard, ii) process the extracted closed caption data in accordance with the digital closed caption data standard if it is determined that the closed caption data is formatted according to a digital closed caption
10 data standard else process the closed caption data in accordance with the analog closed caption data standard if it is determined that the closed caption data is formatted according to an analog closed caption standard, and iii) provide a resulting closed caption data signal suitable for showing the closed caption data on a display.

6. The television signal receiver of claim 5, wherein said closed caption data processor is operable to process the digital closed caption data according to the EIA-708 digital closed caption data standard and to process the analog closed caption data according to the EIA-608 analog closed caption data standard.

7. The television signal receiver of claim 5, further comprising:

a buffer connected to the closed caption processor and the digital television signal processor and operable to combine the resulting closed caption data signal from the closed caption data processor with the video signal from the digital television signal processor for showing the combined television signal on the display.

8. The television signal receiver of claim 5, wherein the closed caption data

processor is operable to continuously monitor the tuned digital television signal for determining whether the closed caption data is formatted according to a digital closed caption data standard or according to an analog closed caption data standard.

15 9. A television signal receiver comprising:

means for receiving a digital television signal containing closed caption data;

means, connected to said means for receiving, for processing the received digital television signal to obtain a video signal and extract the closed caption

20 data; and

means, connected to said means for processing, for i) determining whether the extracted closed caption data is formatted according to a digital closed caption data standard or according to an analog closed caption data

standard, ii) processing the extracted closed caption data in accordance with the digital closed caption data standard if it is determined that the closed caption data is formatted according to a digital closed caption data standard else process the closed caption data in accordance with the analog closed caption data standard if it is determined that the closed caption data is formatted according to an analog closed caption standard, and iii) providing a resulting closed caption data signal suitable for showing the closed caption data on a display.

10. The television signal receiver of claim 9, wherein said means for i) determining whether the extracted closed caption data is formatted according to a digital closed caption data standard or according to an analog closed caption data standard, ii) processing the extracted closed caption data in accordance with the digital closed caption data standard if it is determined that the closed caption data is formatted according to a digital closed caption data standard else process the closed caption data in accordance with the analog closed caption data standard if it is determined that the closed caption data is formatted according to an analog closed caption standard, and iii) providing a resulting closed caption data signal suitable for showing the closed caption data on a display includes:

20 means for processing the digital closed caption data according to the EIA-708 digital closed caption data standard, and
 means for processing the analog closed caption data according to the EIA-608 analog closed caption data standard.

11. The television signal receiver of claim 9, further comprising:

means, connected to the closed caption processing means and the means
for processing the digital television signal, for combining the resulting closed
5 caption data signal with the video signal for showing the combined television
signal on the display.

12. The television signal receiver of claim 9, wherein the closed caption

processing means is further operable to continuously monitor the tuned digital
10 television signal for determining whether the closed caption data is formatted
according to a digital closed caption data standard or according to an analog
closed caption data standard.

13. A method of processing auxiliary information included in a television signal

15 comprising the steps of:

- (a) receiving a digital television signal including auxiliary information;
- (b) determining a format of the auxiliary information; and
- (c) processing the auxiliary information in accordance with a digital auxiliary information standard in response to determining that the auxiliary
20 information comprises data in a digital format, else processing the closed caption data in accordance with an analog auxiliary information standard.

14. A method of processing auxiliary information included in a television signal comprising the steps of:

- (a) receiving a digital television signal including auxiliary information; and
- (b) processing the auxiliary information in accordance with a format of the

5 auxiliary information and with a priority for processing the format of the auxiliary information.

15. The method of claim 14 further comprising the steps of:

determining the format of the auxiliary information; and

10 selecting a priority for processing the format of the auxiliary information.

16. The method of claim 15 wherein the step of processing the auxiliary information occurs in response to determining that the auxiliary information comprises a digital auxiliary information format and selecting a priority for enabling processing of auxiliary information in a digital auxiliary information format and for disabling processing of auxiliary information in an analog auxiliary 15 information format.

17. The method of claim 15 wherein the selected priority comprises one of: a) a digital only priority for enabling processing of the auxiliary information only in response to determining that the format of the auxiliary information corresponds to a digital auxiliary information format, b) an analog only priority for enabling processing of the auxiliary information only in response to determining that the format of the auxiliary information corresponds to an analog auxiliary information format, and c) an any available format for enabling the processing of the auxiliary information in either the digital or analog auxiliary information formats.

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18. The method of claim 15 wherein the selected priority comprises processing auxiliary information in a digital auxiliary information format in response to determining that the received auxiliary information includes auxiliary information in a digital auxiliary information format and auxiliary information in an analog auxiliary information format.

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